Results: C1 = 109 patients (84 with breast cancer, 13 H&N, 12 pelvis), C2= 104 (87B, 12H&N, 5P). In C1 27% used a cream and in C2 96% used a cream (p<0.001). In C2 88/104 complied with policy using the prescribed betamethasone.
Compared to C1, for C2 the mean score was lower for itch (1.3 (0.8-1.8) v 2.8 (2.2-3.4) p<0.001) and discomfort (2.2 (1.7-2.7) v 3.1 (2.6-3.7) (p=0.021), and when betamethasone was used (comparing the 88 from C2 with 125 from C1 or C2) the mean score was lower for itch (0.9 (0.5-1.4) v 2.9 (2.3-3.4) p<0.001), discomfort (2.0 (1.4-2.5) v 3.2(2.6-3.7) p<0.003), and for pain (1.4 (0.9-1.9) v 2.2 (1.7-2.7) p=0.03).
With the use of betamethasone, the frequency of a score of >5 was lower for redness (15% with v 34% without) p=0.002), itch (7% v 25%, p =0.001), discomfort (9% v 22%, p=0.015), but not for pain (9% v 14%, p=0.29). However, sleep disturbance was less common (7% v 21%, p=0.006), as was the use of analgesia (7% v 19%, p=0.015).

Conclusion: The introduction of routine use of prophylactic betamethasone cream for patients with a high risk of radiation skin reaction resulted in a significant reduction in redness, itch, discomfort, sleep disturbance, and on use of analgesia

EP-1469
Survey on the use of complementary and alternative medicine in a German radiooncology department
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Purpose or Objective: The use of complementary and alternative medicine (CAM) continuously gains importance, even though objective data are mostly missing – also in radiation oncology. However, in previous trials methods such as acupuncture showed significant advantages compared to standard therapies. Hence, the aim of this study is to evaluate the most frequently used methods, their significance and potential effect during radiotherapy (RT), as well as the general acceptance amongst cancer patients.

Material and Methods: A detailed questionnaire was developed consisting of 18 questions based on the categorical classification released by the National Centre for Complementary and Alternative Medicine (NCCAM). From January to September 2015, the survey was conducted with all patients undergoing RT at the department of Radiation Oncology, Technische Universität München (TUM), Klinikum rechts der Isar, Munich. Participation was voluntary and pseudonymous.

Results: Of 571 patients, 289 answered the questionnaire (50.6%), with 44.6% females and 38.4% males participating in the study, and a mean age of 60 years. Of these, 66.1% (191/289) received RT only, 20.4% (59/289) had a combined radio-chemotherapy (RCT). Of all participants, 25.9% (75/289) used CAM parallel to RT. Before RT, a total of 40.8% (118/289) had already used complementary medicine. The current most frequently applied methods were vitamins, dietary supplements, homeopathy and physical therapy, whereas in the past before RT also acupuncture and osteopathy had been regularly used. The majority (72.6%, 210/289) declined the use of any complementary treatment. Of these 210 patients, 73.3% (154/210) stated that CAM treatment was not offered to them. Only 20.4% (59/289) of all participants had discussed adding complementary treatments to their current therapy with their consulting physician. The most common reasons for CAM use were intended by the patients to improve the immune system (47%, 136/289), to reduce side effects (43.2%, 125/289), and to not miss an opportunity (37.3%, 108/289). Assuming their health insurance would not compensate the costs for CAM during RT, 52.5% (152/289) of the patients would pay for their treatment. A treatment integrated in the individual therapy concept, such as regular acupuncture, would be used by 62.9% (182/289) of RT patients. In order to gain more information about the changes in attitude towards complementary medicine, we also handed out the questionnaire a second time after RT during the first follow-up visit (n=10). This is an ongoing part of the evaluation. However, it becomes apparent that in retrospect the use of CAM increased.

Conclusion: In comparison to other studies, usage of CAM parallel to RT is considered to be low. The acceptance amongst patients is present, however more information, in terms of personal consultations with physicians, brochures or online information, could encourage a holistic therapy.

EP-1470
Intralesional injection of triamcinolone acetonide in treatment of Radiation Induced Fibrosis
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Purpose or Objective: On the basis of successful intralesional steroid injection for dermatologic scars treatment such as keloids and burn scars, we planned to evaluate intralesional triamcinolone acetonide injection in treatment of RIF as there is no data available for its use for this indication

Material and Methods: 30 patients with RIF of different sites (19 cases breast, 4 cases neck, 3 back, 2 face and 2 lower limbs) at least 6 months after end of radiation were included in our study. They were treated by intralesional Triamcinolone acetonide injection. Injections were carried out by dermojet at 1 cm interval. Injections were repeated every 2 weeks for 3months. Assessment was done according to RTOG grading before treatment and repeated during and 3 months after end of treatment.

Results: We documented over all response rates of 80%, marked and complete improvement of RIF 43.33%, 30% showed one grade improvement, 6.67% had two grades improvement, while 20% of patients didn't respond (P-value <0.001). Pain score was significantly improved (p value <0.001), 44% of the included patients had complete improvement of pain, 36% had mild residual pain and 20% of patients expressed moderate residual pain. No significant adverse events were observed. The results were significantly better with younger age group (P-value=0.021), smaller BMI (p-value=0.007), patients who received lower radiation doses (P value =0.03), smaller number of radiotherapy treatment sessions (P-value=0.05), smaller radiation field sizes (P value=0.001), and patients with shorter duration of RIF (P value <0.001).

Conclusion: Intralesional triamcinolone acetonide injection can be considered as an effective in treatment of RIF. It can be considered as a promising effective, safe, less costly therapeutic option in treatment of RIF. To the best of our knowledge, no previous data are available about the use of intralesional injection of triamcinolone acetonide for treatment of RIF.
Key words: Radiation, fibrosis, intralesional.

EP-1471
The effect of radiotherapy on Ledderhose disease
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Purpose or Objective: The only treatment option for Ledderhose disease seems radiotherapy as surgery is associated with a high chance of recurrence and morbidity.

Therefore, we investigated the effect of radiotherapy on Ledderhose disease.

Material and Methods: Between 2008 and 2014, 37 patients (56 feet) with Ledderhose disease were treated with radiotherapy at our department (figure 1). Radiation treatment consisted of 30 Gy given in 10 fractions (orthovolt 200 kV or electrons 6-10 MeV). After the first 5 fractions, a 8-10 week split was included. After this split, the remaining 5 fractions were given. Progressive disease (PD) was defined as progression of complaints. Stable disease (SD) was defined as no improvement or progression of complaints. Partial response (PR) was defined as improvement or no complaints, but still nodules were present. Complete response (CR)was defined as no complaints and no nodules present.

Results: All patients completed the planned treatment. The mean follow-up time was 25 months (range 3 to 46 months). Mean age of patients was 53 years, 46% were men, 54% were women. In 51% of patients (n=19), both feet were affected. After the radiotherapy, a minority of the patients complained of rash or dry skin, which resolved spontaneously. Of the 56 feet treated, 5% had PD, 23% had SD, 64% had PR and 7% had CR. No radiation induced malignancies were seen. Of the two patients with PD, one patient had previous surgery for Ledderhose disease and the other patient had PD disease after an initial PR.

Conclusion: Radiotherapy is an effective treatment for Ledderhose disease. However, the National Health Care Institute of the Netherlands does not support radiotherapy for Ledderhose disease as no randomized controlled trail have investigated the efficacy of radiotherapy. Therefore, we will present a double blind randomized multicentre phase three study to confirm the current results prospectively.

EP-1472

Role of SBRT with VMAT-FFF for abdomino-pelvic lymph node metastases in oligometastatic patients

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Purpose or Objective: Nowadays stereotactic body radiotherapy (SBRT) is considered a safe and effective approach for several sites of metastatic disease. So far, few published data exist on local control rates of radiotherapy in the context of isolated or limited lymph node metastases. We analyzed the dosimetric and clinical results of oligometastatic patients treated with SBRT for isolated lymph node metastases in abdomen and/or pelvis.

Material and Methods: In the analysis we included patients with a maximum of 3 lymph node sites of disease with diameter less than 5 cm, located in the abdomen or pelvis. Radiotherapy was administered with Volumetric Modulated Arc Therapy Rapid-Arc (VMAT-RA) and flattening filter-free (FFF) beams; prescribed dose was 45 Gy in 6 fractions of 7.5 Gy each. We analyzed dosimetric data and correlated them with acute toxicity (CTCAE 3.0), local and distant control of disease, progression free survival and overall survival.

Results: From January 2006 to May 2015, we treated 97 patients with lymph node metastases, of which 26 were lost at follow-up. We analyzed then 71 patients with a total of 79 treated lesions, with a mean follow-up of 1.44 years (range 0.14 – 6.21 years). At revaluation, complete response was achieved in 39 (49.3%) lesions and partial response in 28 (35.4%) lesions. Stable disease was demonstrated in 10 (12.6%) cases while only 2 (2.5%) lesions showed progression of disease. The overall clinical benefit rate was 97.5% (77/79 lesions). Acute toxicity was mild: 10 (14%) patients reported G1 toxicity (notably nausea and fatigue); 2 (2.8%) patients reported G2 toxicity (nausea and diarrhea). No Grade 3 and 4 toxicities were reported. In-field progression of disease during follow-up was demonstrated in 18 sites (22.7%) with a median time of 10.7 months. Out-field lymph node progression was demonstrated in 22 (27.8%) cases while distant metastases occurred in 25 (31.6%) cases. Local control rate and overall survival rate at 1 year were 83% and 93%, respectively.

Conclusion: In consideration of our dosimetric and clinical results, SBRT with VMAT-RA and FFF beams can be considered a safe and effective approach in oligometastatic patients with abdomino-pelvic isolated lymph node metastases. Although this can be considered an initial experience, these results may be potentially significant for preserving quality of life of patients and delaying further systemic treatments.

EP-1473

The clinical study on oligometastases from different tumors treated with carbon ions

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Purpose or Objective: The purpose of this study was to evaluate the efficacy and feasibility of carbon ion